

PATENT APPLICATION Attorney Docket No. 24881-301D

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Fredeking et al. Applicant:

Serial No.: 10/038,557

Filed: January 3, 2002

Confirmation No.: 8399

COMPOSITIONS AND METHODS FOR TREATING HEMORRHAGIC For:

VIRUS INFECTIONS AND OTHER DISORDERS

Not Yet Assigned Examiner:

VERIFIED STATEMENT PURSUANT TO 37 § C.F.R. 1.821(f)

I, Alycen P. Nigro, declare that I personally prepared the computerreadable form of the Sequence Listing set forth in the above-entitled case and that the content of the paper copy and the computer-readable form are the same. The computer-readable file is titled 301DSEQ.002.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated at San Diego, California this 24th day of May, 2002.

Alycen P. Nigro, Ph

Patent Scientific Advisor to

Stephanie Seidman

Registration No. 33,779 Attorney for Applicant

Comments:



UNITED STATES DEPARTMENT OF COMMERCE
Patient and Trademark Office
ASSISTANT SECRETARY MID CHAMESTALE
OF PATENTS AND TRACEMARKS
Washington, D.C. 20231

BIOTECHNOLOGY
SYSTEMS
BRANCH

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/038,557

Source: 01/6

Date Processed by STIC: 1/28/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.1 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission

 User Manual ePAVE)
- 2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
- 3. Hand Carry directly to:
 - U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
 - U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two 2011 South Clark Place, Arlington, VA 22202
- 4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1803-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



TT:00

U0/24/U2



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/038,557

DATE: 01/28/2002

TIME: 18:06:10

Input Set : A:\301dseq.001

Output Set: N:\CRE3\01282002\J038557.raw

Does Not Comply

Corrected Diskette Needec 3 <110> APPLICANT: Fredeking, Terry M. Ignatyev, George M. 6 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING HEMORRHAGIC VIRUS INFECTIONS AND OTHER DISORDERS 9 <130> FILE REFERENCE: 24881-301D C/V> 11 <140> CURRENT APPLICATION NUMBER: US/10/038,557 CUT) 12 <141> CURRENT FILING DATE: 2002-01-03 14 <150> PRIOR APPLICATION NUMBER: 09/840,707 15 <151> PRIOR FILING DATE: 2001-04-23 17 <150> PRIOR APPLICATION NUMBER: 09/562,979 18 <151> PRIOR FILING DATE: 2000-04-27 20 <150> PRIOR APPLICATION NUMBER: 60/198,210 21 <151> PRIOR FILING DATE: 1999-04-27 23 <160> NUMBER OF SEQ ID NOS: 26 25 <170> SOFTWARE: Patentin Ver. 2.0 27 <210> SEQ ID NO: 1 28 <211> LENGTH: 271 29 <212> TYPE: PRT 30 <213> ORGANISM: Homo sapiens 32 <220> FEATURE: 33 <223> OTHER INFORMATION: Recombinant Interleukin 1-alpha 35 <300> PUBLICATION INFORMATION: 36 <308> DATABASE ACCESSION NO: AAA59134/GenBank W--> 38 (300) PUBLICATION INFORMATION: 1 39 Met Ala Lys Val Pro Asp Met Phe Glu Asp Leu Lys Asn Cys Tyr Ser 40 1 Clu Asn Glu Glu Asp Ser Ser Ser Ile Asp His Leu Ser Leu Asn Gln nesposse are mendatory wherever C3087 Les a resposse 43 25 Lys Ser Phe Tyr His Val Ser Tyr Cly Pro Leu His Glu Gly Cys Met 45 46 40 Asp Gln Ser Val Ser Leu Ser Ile Ser Glu Thr Ser Lys Thr Ser Lys 48 49 55 Leu Thr Phe Lys Glu Ser Met Val Val Val Ala Thr Asn Gly Lys Val 53. 52 70 75 Leu Lys Lys Arg Arg Leu Ser Leu Ser Gln Ser Ile Thr Asp Asp 54 55 85 Leu Glu Ala Ile Ala Asn Asp Ser Glu Glu Glu Ile Ile Lys Pro Arg 57 58 60 Ser Ala Pro Phe Ser Phe Leu Ser Asn Val Lys Tyr Asn Phe Met Arg 61 115 120 The The Lys Tyr Glu Phe He Leu Asn Asp Ala Leu Asn Gln Ser He 63 64 Ile Arg Ala Asn Asp Gln Tyr Leu Thr Ala Ala Ala Leu His Asn Leu 66

```
DATE: U1/28/2002
               RAW SEQUENCE LISTING
                PATENT APPLICATION: US/10/038,557
                                                        TIME: 18:06:10
                Input Set : A:\301dseq.001
               Output Set: N:\CRF3\01282002\J038557.raw
   145
67
   Asp Glu Ala Val Lys Phe Asp Met Gly Ala Tyr Lys Ser Ser Lys Asp
                                        170
                    165
70
   Asp Ala Lys Ile Thr Val Ile Leu Arg Ilc Scr Lys Thr Gln Leu Tyr
                                    185
73
               180
   Val Thr Ala Gln Asp Glu Asp Gln Pro Val Leu Leu Lys Glu Met Pro
           . 195
```

215 79 210 Trp Glu Thr His Gly Thr Lys Asn Tyr Phe Thr Ser Val Ala His Pro 81 235 82 225 Asn Leu Phe Ile Ala Thr Lys Glu Asp Tyr Trp Val Cys Leu Ala Gly 250 85 245 Gly Pro Pro Ser Ile Thr Asp Phe Gln Ile Leu Glu Asn Gln Ala 270 265

Glu Ile Pro Lys Thr Tle Thr Gly Ser Glu Thr Asu Leu Leu Phe Phe

88 92 <210> SEQ ID NO: 2 93 <211> LENGTH: 269 94 <212> TYPE: PRT 95 <213> ORGANISM: Homo sapiens 97 <220> FEATURE:

98 <223> OTHER INFORMATION: Interleukin-1 beta (catabolin)

100 <300> PUBLICATION INFORMATION:

101 <308> DATABASE ACCESSION NO: P01584/Genbank --> 103 (3002 PUBLICATION INFORMATION: 2) same lun Mct Ala Clu Val Pro Lys Leu Ala Sér Glu Met Met Ala Tyr Tyr Ser 105 Gly Asn Glu Asp Asp Leu Phe Phe Clu Ala Asp Gly Pro Lys Gln Met 107 108 25 Lys Cys Ser Phe Gin Asp Leu Asp Leu Cys Pro Leu Asp Gly Gly Ile 110 111 35 Gln Len Arg Tle Ser Asp His His Tyr Ser Lys Gly Phe Arg Gln Ala 11.3 50 55 114 Ala Ser Val Val Val Ala Met Asp Lys Leu Arg Lys Met Leu Val Pro 116 117 70 65 Cys Pro Gln Thr Phe Gln Glu Asn Asp Leu Scr Thr Phe Phe Pro Phe 119 -90 Ile Phe Glu Glu Glu Pro Ile Phe Phe Asp Thr Trp Asp Asn Glu Ala 105 110 100 123 Tyr Val His Asp Ala Pro Val Arg Ser Ten Asn Cys Thr Leu Arg Asp 125 126 120 Ser Gln Gln Lys Ser Leu val Met Ser Gly Pro Tyr Glu Leu Lys Ala 128 135 140 129 130 Leu His Leu Glu Gly Glu Asp Met Glu Gln Gln Val Val Phe Ser Met 132 150 155 Ser Phe Val Gln Gly Glu Glu Ser Asn Asp Lys Ile Pro Val Ala Leu 134 170 135 165 137 Gly Leu Lys Glu Lys Asn Leu Tyr Leu Ser Cys Val Leu Lys Asp Asp 185 138 180 140 Lys Pro Thr Leu Gln Leu Glu Ser Val Asp Pro Lys Asn Tyr Pro Lys

```
PATENT APPLICATION: US/10/038.557

DATE: 01/28/2002
TIME: 18:06:10
```

Input Set : A:\301dseq.001

```
Output Set: N:\CRF3\01282002\J038557.raw .
                                      300
                  195
     141
         Lys Lys Met Glu Lys Arg Phe Val Phe Asn Lys The Glu Ile Asn Asn
     144
                                  215
                                                      220
     145
              210
          Lys Lou Clu Phe Glu Ser Ala Gin Phe Pro Asn Trp Tyr Ile Ser Thr
     147
                                                  235
                              230
     148
          225
          Ser Gln Ala Glu Asn Met Pro Val Phe Leu Gly Gly Thr Lys Cly Gly
     150
     151
                          245
                                              250
         Gin Asp Ile Thr Asp Phe Thr Met Gln Phe Val Ser Ser
     153
     154
                                          265
                      260
     157 <210> SEQ ID NO: 3
     158 <211> LENGTH: 569
     159 <212> TYPE: PRT
     160 <213> ORGANISM: Homo sapiens
     162 <220> FEATURE:
     163 <223> OTHER INFORMATION: Interleukin-1 receptor, Type I precursor
     165 <300> PUBLICATION INFORMATION:
     166 <308> DATABASE ACCESSION NO: P14778/GenBank
W--> 168 (300) PUBLICATION INFORMATION: 3) same even
          Met Tys Val Leu Leu Arg Leu Ile Cys Phe Ile Ala Leu Leu Ile Ser
     169
            1
     170
          Ser Leu Glu Ala Asp Lys Cys Lys Glu Arg Glu Clu Lys Ile Ile Leu
     172
     173
     175
          Val Ser Ser Ala Asn Glu Ile Asp Val Arg Pro Cys Pro Leu Asn Pro
     176
                   35
                                      - . 40
         Asn Glu His Lys Gly Thr Ile Thr Trp Tyr Lys Asp Asp Ser Lys Thr
     178
     179
                                   55
          Pro Val Ser Thr Glu Gln Ala Ser Arg Ile His Gln His Lys Glu Lys
     181
                                                   75
     182
                               70
          Leu Trp Phe Val Pro Ala Tys Val Glu Asp Ser Gly His Tyr Tyr Cys
     184
     185
                           85
                                               90
         Val Val Arg Asn Ser Ser Tyr Cys Leu Arg Ile Lys Ile Ser Ala Lys
     187
                                                              110
                                          105
     188
                      100
         Phe Val Glu Asu Glu Pro Asu Leu Cys Tyr Asu Ala Glu Ala Ile Phe
     190
                                                          125
     191
                  115
                                      120
         Lys Cln Lys Leu Pro Val Ala Gly Asp Gly Cly Lou Val Cys Pro Tyr
     193
                 135 ·
         Met Clu Phe Phe Lys Asn Glu Asn Asn Glu Leu Pro Lys Leu Gln Trp
     196
     197
          145
         Tyr Lys Asp Cys Lys Pro Leu Leu Leu Asp Asn Tle His Phe Ser Gly
     1,99
     200
                          165
                                              170
     202
         Val Lys Asp Arg Len Ile Val Met Asn Val Ala Glu Lys His Arg Gly
     203
                                          185
         Asn Tyr Thr Cys His Ala Ser Tyr Thr Tyr Leu Gly Lys Gln Tyr Pro
     205
     206
                                      200
     208
          Ile Thr Arg Val Ile Glu Phe Ile Thr Leu Glu Glu Asn Lys Pro Thr
     209
                                  215
         Arg Pro Val Ile Val Ser Pro Ala Asn Glu Thr Met Glu Val Asp Leu
                              230
                                                  235
```

Gly Ser Gln Ile Gln Leu 1le Cys Asn Val Thr Gly Gln Leu Ser Asp

RAW SEQUENCE LISTING DATE: 01/28/2002 PATENT APPLICATION: US/10/038,557 TIME: 18:06:10

Input Set : A:\301dseq.001

Output Sel: M:\CRF3\01282002\J038557.raw

```
255
217
                      245
                                           250
     Ile Ala Tyr Trp Lys Trp Asn Gly Scr Val Ile Asp Glu Asp Asp Pro
219
220
                  260
                                      265
                                                            270
     Val Leu Gly Glu Asp Tyr Tyr Ser Val Glu Asn Pro Ala Asn Lys Arg.
222
                                  280
223
     Arg Ser Thr Leu lle Thr Val Leu Asn Tle Ser Giu Ile Glu Ser Arg
225
226
                              295
          290
     Phe Tyr Lys His Pro Phe Thr Cys Phe Ala Lys Asn Thr His Gly Ile
228
229
                          310
                                               315
     305
     Asp Ala Ala Tyr Ile Glu Leu Ile Tyr Pro Val Thr Asn Phe Gln Lys
231
232
                      325
                                           330
     His Mct Ile Gly Ile Cys Val Thr Leu Thr Val Ile Ile Val Cys Scr
234
235
                                      345
                  340
     Val Phe Ile Tyr Lys Ilc Phe Lys Ile Asp Ile Val Ten Trp Tyr Arg
237
              355
238
                                  360
                                                       365
     Asp Ser Cys Tyr Asp Phe Leu Pro Ile Lys Ala Ser Asp Gly Lys Thr
240
241
                             . 375
                                                   380
     Tyr Asp Ala Tyr Ile Leu Tyr Pro Lys Thr Val Gly Glu Gly Ser Thr
243
244
                          390
     385
                                               395
246
     Ser Asp Cys Asp Ile Phe Val Phe Lys Val Leu Pro Glu Val Leu Glu
247
                      405
                                          410
     Lys Glu Cys Gly Tyr Lys Leu Phe Ilc Tyr Cly Arg Asp Asp Tyr Val
249
250
                                      125
                 420
     Gly Glu Asp Ile Val Glu Val Ile Asn Glu Asn Val Lys Lys Ser Arg
252
253
             435
                                  440
                                                       115
255
     Arg Leu Ile Ile Ile Leu Val Arg Glu Thr Ser Gly Phe Ser Trp Leu
256
                              455
258
     Gly Gly Ser Ser Glu Glu Gln ile Ala Met Tyr Asn Ala Teu Val Gin
259
     465
                         470
                                               475
                                                                    480
     Asp Gly Ile Lys Val Val Leu Leu Glu Leu Glu Lys Ile Gln Asp Tyr
267
262
                     485
                                          490
264
     Glu Lys Met Pro Glu Ser Ile Lys Phe Ile Lys Gln Lys His Gly Ala
265
                 500
                                      505
                                                           510
     Ile Arg Trp Scr Cly Asp Phe Thr Gln Gly Pro Gln Ser Ala Lys Thr
267
268
                                 520
                                                       525
270 Arg Phe Trp Lys Asn Val Arg Tyr His Met Pro Val Gln Arg Arg Ser
271
         530
                              535
                                                   540
273 Pro Ser Ser Lys His Gin Leu Leu Ser Pro Ala Thr Lys Glu Lys Leu
274
     545
                         550
                                               555
                                                                    560
276
     Gin Arg Glu Ala His Val Pro Leu Gly
277
                     565
279 <210> SEQ 1D NO: 4
280 <211> LENGTE: 398
281 <212> TYPE: PRT
282 <213> ORGANISM: Homo sapiens
284 <220> FEATURE:
285 <223> OTHER INFORMATION: Interleukin-1 receptor, Type II precursor
287 <300> PUBLICATION INFORMATION:
```

288 <308> DATABASE ACCESSION NO: P27930/GenBank

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/038,557

DATE: 01/28/2002 TIME: 18:06:10

Input Set : A:\301dseq.001
Output Set: N:\CRF3\01282002\J038557.7aw

The types of errors shown exist throughout the Sequence Listing. Please check subsequences for similar errors.

																ತ ಲಿದ್ದಬಳ	nces l
W>	290	₹300	> PU	BLIC	ATIO	N IN	FORM	ATIO	N: A) s	en	معر)					
	29 _	Met	Leu	Arg	Len	Tyr	Val	Leu	Va1	Met	Gly	Val	Ser	Ala	Phe	Thr	Leu
	292	1				5					10					15	•
	294	Gln	Pro	Ala		His	Thr	GTÄ	Ala		Arg	Ser	Cys	Arg	Phe 30	Arq	Gly
	295		*** ~		20	A tearer	01.0	Dha	3 ===	25	~ 3.,	C1.,	GI.	DYG		א ז ב	Ten
	297	Arg	HIS	35	гуя	Ary	GIU	FIIE	40	тец	Gru	GTÀ	GIU	45	AGT	VTG	Leu
	298 300	3 35 67	Cvc		Gln	va 1	Pro	ጥ፣ታን		Ten	T	a T a	Cer		Set	Pro	Arg
	301	·	50					55	_				60				
	303		Asn	Leu	Thr	Trp	His	ГÀЗ	Asn	Asp	SCI		Arg	Th.x	Va.l	PIO	Gly
	304	65					70					75					80
	306 307	Glu	Glu	Glu	Thr	Arg 85	Met	Trp	Ala	Gin	Asp 90	Gly	Ala	Leu	Trp	Leu 95	ľĠĦ
	309	bxo	Ala	Leu	Gln	Glu	Asp	Ser	Gly	Thr	Tyr	Val	Cys	Thr	Thr	Arg	Asn
	310				100		_		_	105	_				110	_	
	312	Ala	Ser	Tyr	Cys	Asp	Lys.	Met	Ser	Ile	Glu	Leu	Arg	Val	Phe	Glu	Asn
	313			115					120					125			
	315	Thr	Asp	Ala	Phe	Leu	PTO	Phe	Ile	Ser	Tyr	Pro	Gln	Ilc	Leu	Thr	Leu
•	316		130					135					140				
	318	Ser	Thr	Ser	Gly	Val	Leu	Val	Суѕ	Pro	Asp	Leu	Ser	Glu	Phe	Thr	Arg
	319	145					150	.				155					160
•	321 322	Asp	Lys	Thr	Asp	Val 165	Lys	Ilc	C1n	Trp	Tyr 170	Lys	Asp	Ser	Leu	Leu 175	Leu
	324	Λερ	Lvg	Asp	Asn		Lvs	Phe	Leu	Ser		Arg	Glv	Thr	Thr		Leu
	325				180					185	•		_		190		
•	327	Leu	va1	His	Asp	Val	Ala	Leu	Glu	Asp	Ala	Gly	Tyr	Tyr	Arg	Cys	Val
	328			195					200	`		_	-	205	•	_	
	330	Leu	Thr	Phe	Ala	His	Glu	Gly	Gln	Gln	Tyr	Asn	Ile	Thr	Arg	Ser	Ilc
	331		210					215			_		220				
	3 33	Glu	Leu	Arg	Ile	Lys	Lys	Lys	Lys	Glu	Glu	Thr	Ile	Pro	Val.	Ile	Ile
	334	225		•			230					235					240
•	336 337	Ser	Fro	Lou	Lys	Thr 245	Ile	Ser	Ala	Ser	Leu 250	Gly	Ser	Arg	Leu	Thr 255	Ile
	339	PTO	Cvs	LVS	val		Leu	Glv	Thr	Glv		Pro	Leu	Thr	Thr		Leu
	340		0 10.	-1-	260			0 1 1		265					270		
	342	Trp	Trp	Thr		Asn	Asp	Thr	His		Glu	Ser	Ala	Tyr	Pro	Gly	Gly
	343	•	•	275					280					285			
	345	Arg	Val		Glu	GLy	Pro	Arg	Gln	Glu	Tyr	Ser	Glu	Asn	Asn	Glu	Asn
	346		290			•		295					300				
	348	TYT	Ile	Glu	Val	Pro	Leu	Ile	Phe	Asp	Pro	Val	Thr	Arg	Clu	Asp	Leu
	349	305					310	•		_		315				•	320
	351	His	MeL	Asp	Phe	Lys	Cys	Val	Val	His	Asn	Thr	Leu	Ser	Phe	Gln	Thr
	352			_		325	_				330					335	
	354	Leu	Arg	Thr	Thr	Val	Lys	Glu	Ala	Ser	Ser	Thr	Phe	ser	Ттр	GLy	Ile
	355		_		340		_			345					350	-	
	357	Val	Leu	Ala	Pro	Leu	Ser	Leu	Ala	Phe	Leu	Val	Leu	Gly	Gly	Ile	Trp
	358			355					360					365	-		
	360	Met	His	Arg	Arg	Cys	Lys	His	Arg	Thr	Gly	Lys	Ala	Asp	Gly	Leu	Thr
	361		370					375	•			•	380				

11.17

VERIFICATION SUMMARY

PATENT APPLICATION: UE/10/038,557

DATE: 01/28/2002
TIME: 18:06:11

Input Set: A:\301dseq.001

Output Set: N:\CRF3\01282002\J038557,raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:38 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:1 L:103 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:2 L:168 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:3 L:290 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:4 L:379 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:5 L:840 M:283 W: Missing Blank Line separator, <220> field identifier L:872 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:14 L:932 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:15 L:986 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:16 L:1090 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:16